

**REVISED DIRECT TESTIMONY AND EXHIBITS OF****ANTHONY M. SANDONATO****ON BEHALF OF****THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF****DOCKET NO. 2021-3-E**

1 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION.**

2 A. My name is Anthony Sandonato. My business address is 1401 Main Street, Suite  
3 900, Columbia, South Carolina, 29201. I am employed by the South Carolina Office of  
4 Regulatory Staff (“ORS”) in the Energy Operations Division as a Senior Regulatory  
5 Manager.

6 **Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

7 A. I received my Bachelor of Science in Nuclear Engineering from North Carolina  
8 State University in 2011. Prior to my employment with ORS, I was employed as an analyst  
9 with a global professional, technology, and marketing service firm working with large  
10 investor-owned utilities on energy efficiency program design and implementation. I joined  
11 ORS in 2016, and, in October 2019, I was promoted to my current position in the Energy  
12 Operations Division.

13 **Q. HAVE YOU TESTIFIED BEFORE THE PUBLIC SERVICE COMMISSION OF**  
14 **SOUTH CAROLINA (“COMMISSION”)?**

15 A. Yes. I have previously testified before the Commission.

16 **Q. WHAT IS THE MISSION OF ORS?**

1     A.             ORS represents the public interest as defined by the South Carolina General  
2             Assembly in S. C. Code Ann. § 58-4-10 as:

3                     [T]he concerns of the using and consuming public with respect to public  
4                     utility services, regardless of the class of customer, and preservation of  
5                     continued investment in and maintenance of utility facilities so as to provide  
6                     reliable and high-quality utility services.

7     **Q.     WHAT IS THE PURPOSE OF YOUR REVISED DIRECT TESTIMONY IN THIS**  
8             **PROCEEDING AND HOW DOES YOUR REVISED DIRECT TESTIMONY**  
9             **REPRESENT THE PUBLIC INTEREST?**

10    A.             The purpose of my revised direct testimony is to set forth ORS's recommendations  
11             resulting from our examination and review of Duke Energy Carolinas, LLC's ("Company")  
12             fuel expenses during the review period. The review period includes the actual data for June  
13             2020 through May 2021 ("Actual Period"), estimated data for June 2021 through  
14             September 2021 ("Estimated Period") and forecasted data for October 2021 through  
15             September 2022 ("Forecasted Period"). My review focused on evaluating the Company's  
16             fuel procurement and forecasting policies, procedures, and activities to ensure the  
17             Company made every reasonable effort to minimize fuel costs so as to provide reliable and  
18             high-quality service to its customers.

19    **Q.     WAS THE REVIEW TO WHICH YOU TESTIFY PERFORMED BY YOU OR**  
20             **UNDER YOUR SUPERVISION?**

21    A.             Yes. The review to which I testify was performed by me or under my supervision.

22    **Q.     WHAT DID ORS'S REVIEW OF THE COMPANY'S FUEL EXPENSES**  
23             **INVOLVE?**

24    A.             ORS examined various fuel related documents as part of our review. These  
25             documents addressed the Company's fuel, environmental, and purchased power expenses

for the Actual, Estimated, and Forecasted Periods. In preparation for this proceeding, ORS analyzed the Company's monthly fuel reports. ORS examined the Company's contracts for nuclear fuel, coal, natural gas, fuel oil, transportation, environmental reagents, and purchased power. ORS also evaluated the Company's policies and procedures for fuel procurement. All information was reviewed with reference to the Company's existing Adjustment for Fuel, Variable Environmental, Avoided Capacity, S.C. Code Ann. § 58-27-865 (the "Fuel Clause Statute"), and the Company's approved Distributed Energy Resource Program ("DERP"), S.C. Code Ann. § 58-39-140.

**Q. WHAT ADDITIONAL STEPS WERE TAKEN IN ORS'S REVIEW OF THE COMPANY'S PROPOSAL?**

A. ORS met virtually with Company personnel from various departments to discuss and review fossil and nuclear fuel procurement, fuel transportation, environmental compliance costs and procedures, emission allowances, forecasting, and general Company policies and procedures pertaining to fuel procurement. In addition, ORS monitored the nuclear, coal, natural gas, transportation and renewable industries through industry and governmental publications.

**Q. DID ORS REVIEW THE COMPANY'S NUCLEAR FUEL LABOR COSTS?**

A. Yes. ORS reviewed the Company's labor costs regarding nuclear fuel procurement, nuclear core design, safety analysis, and fabrication surveillance and final receipt inspection ("Nuclear Labor Costs"). Additionally, ORS conducted discovery and held discussions with Company personnel regarding its Nuclear Labor Costs. The Company and Duke Energy Progress, LLC ("DEP") have consistently been recovering these costs through the Fuel Clause Statute. ORS found that the Company has included these Nuclear

Labor Costs in this proceeding in the same manner as requested by Dominion Energy South Carolina, Inc. (“DESC”) in Docket No. 2021-2-E. The Commission approved DESC’s request in Order No. 2021-296(A) and DEP’s request in Order No. 221-446.

**Q. DID ORS REVIEW THE COMPANY’S ENVIRONMENTAL COMPLIANCE RELATED COSTS?**

A. Yes. ORS reviewed the Company’s environmental compliance related costs including allowances for nitrogen oxide (“NO<sub>x</sub>”) and sulfur dioxide (“SO<sub>2</sub>”) emissions, reagents (i.e., limestone, ammonia, urea, etc.), and chemicals used in the reduction of these emissions. The use of these chemicals and reagents reduces the Company’s NO<sub>x</sub> and SO<sub>2</sub> emissions, and the costs associated with the use of these substances are included in the Company’s Adjustment for Fuel, Variable Environmental, Avoided Capacity, and DERP costs tariff as provided by the Fuel Clause Statute.

**Q. DID ORS REVIEW THE ACCURACY OF THE COMPANY’S FORECAST?**

A. Yes. As shown in Exhibit AMS-1, the Company’s megawatt-hour (“MWh”) sales were 5.17% lower than expected during the Actual Period. Exhibit AMS-2 shows, on average, the fuel costs for the Actual Period were 3.93% higher than the projected monthly fuel costs. Exhibit AMS-3 shows the fuel expenses for the Actual Period were 1.78% lower than the Company’s projections for the Actual Period.

**Q. PLEASE DISCUSS THE COMPANY’S SUPPLEMENTAL TESTIMONY FILED ON AUGUST 18, 2021.**

A. Subsequent to the filing of the Company’s Direct Testimony on July 30, 2021, ORS and the Company engaged in discussions regarding increases in fuel commodity prices. These discussions revolved around the commodity prices used in the Company’s forecast,

1 from April 2021, which was used in the Company's Direct Testimony, compared to the  
2 current market commodity prices at the time of the filing. The use of a three-month old  
3 forecast during a time with large variations in commodity markets lead to a concern for a  
4 potentially large under collection at the end of the Forecasted Period. While this situation  
5 is atypical, it is not unprecedented. As stated by Company witness Sykes, the Company  
6 has, in the past, proposed rates based on an updated fuel forecasts, as changes were  
7 necessary to align rates to recover anticipated costs.<sup>1</sup>

8 As discussed by Company witness Phipps, coal and natural gas prices are dynamic,  
9 volatile and can change significantly based on market fundamental drivers. There continues  
10 to be sustained upward pressure on natural gas prices due to: 1) stable production; 2) lower  
11 projected storage inventory balances going into winter 2021/2022; 3) strong growth in  
12 liquefied natural gas exports; and 4) increasing consumption in non-power generation  
13 sectors as the economy continues to recover from COVID-19. Coal supply markets are  
14 seeing similar upward pressure attributed to increasing electric generation, strong export  
15 demand, and financial constraints.<sup>2</sup> These factors are seen in the updated coal burn and  
16 natural gas burn projections as well as the updated projected pricing.

17 The Company's Supplemental Direct Testimonies account for the recent increases  
18 in commodity futures pricing, updated projected natural gas and coal burns, and includes  
19 changes to the variable environmental component of the Fuel Clause related to items  
20 identified by ORS during the review of the Actual Period.

21 **Q. PLEASE DISCUSS ORS'S REVIEW OF THE COMPANY'S FORECASTED**  
22 **SALES AND COSTS FOR THE ESTIMATED AND FORECASTED PERIODS.**

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<sup>1</sup> Supplemental Direct Testimony of Bryan Sykes p. 3

<sup>2</sup> Supplemental Direct Testimony of Brett Phipps pp. 2-3

1 A. ORS reviewed the Company's projected sales and analyzed them with regards to  
2 the projections from its last fuel proceeding in Docket No. 2020-3-E and the actual sales  
3 from the Actual Period. ORS held discussions with the Company about forecasting  
4 methodology and impacts associated with weather, holidays, COVID-19, and other factors.  
5 ORS found the Company's sales projections to be reasonable and in line with historical  
6 sales data.

7 ORS reviewed the Company's forecasted costs for nuclear fuel, coal, natural gas,  
8 fuel oil, transportation, environmental reagents, and purchased power for the Estimated and  
9 Forecasted Periods used to develop the Company's Supplemental Direct Testimony. ORS  
10 compared the monthly projected costs to historical projections from Docket No. 2020-3-E,  
11 actual data from the Actual Period, and commodity prices from numerous industry  
12 publications. Based on this review of the updated forecast, ORS found the Company's  
13 forecasted costs to be reasonable.

14 **Q. DID ORS DETERMINE THE PRIMARY DRIVERS OF THE COMPANY'S**  
15 **REQUEST FOR A RATE CHANGE IN THIS PROCEEDING?**

16 A. Yes. Exhibit AMS-4 shows the cumulative ending period balances of base fuel,  
17 environmental, capacity, and DERP avoided costs beginning in May 2012. As of May  
18 2021, the Company had a cumulative base fuel over-recovery balance of (\$1,958,883), a  
19 cumulative environmental over-recovery balance of (\$1,690,481), a cumulative capacity  
20 related under-recovery balance of \$3,819,899, and a cumulative DERP avoided costs over-  
21 recovery balance of (\$249,500). This is reflected in ORS witness Briseno's Exhibit ADB-  
22 4. As shown on ORS witness Briseno's Exhibit ADB-4, ORS projects the Company to  
23 have a cumulative base fuel under-recovery balance of \$22,454,753, a cumulative

environmental over-recovery balance of (\$1,386,744), a cumulative capacity related under-recovery balance of \$3,177,246, and a cumulative DERP avoided costs over-recovery balance of (\$178,909) by September 2021. The Company's request for an increase is driven by the projected fuel cost under-recovery as of September 30, 2021, rather than the over-collection of fuel costs reflected in existing rates. An additional driver is the increasing commodity prices in the Forecasted Period as discussed in detail in the Company's Supplemental Direct Testimony.

**Q. WHAT CHANGES DOES THE COMPANY REQUEST TO ITS CURRENTLY APPROVED FACTORS?**

A. The Company requests the Commission approve an increase to its currently approved Base Fuel Component for the Forecasted Period. Additionally, the Company requests to update its Variable Environmental Component, Capacity Related Cost Component, and DERP Avoided Cost Component to reflect the Company's forecasted expenses and allocation of these expenses to each class of customer based on its contribution to the Company's peak demands.

**Q. DOES ORS RECOMMEND ANY ADJUSTMENTS TO THE FUEL FACTORS PROPOSED BY THE COMPANY?**

A. No. ORS does not recommend any adjustments to the Company's proposed fuel factors based on the Company's historical and updated forecasted fuel expenses and customer sales.

**Q. ARE THERE ANY ADDITIONAL FACTORS IN THIS DOCKET THAT WILL IMPACT CUSTOMERS' BILLS?**

1 A. Yes. The Company included proposed rates related to its DERP incremental  
2 expenses. ORS witness Morgan addresses the Company's incremental expenses to be  
3 recovered as a fixed charge ("DERP Charge") on customer bills.

4 **Q. WHAT IMPACT WILL THE PROPOSED CHANGE HAVE ON THE TYPICAL**  
5 **MONTHLY BILL OF A RESIDENTIAL CUSTOMER?**

6 A. Exhibit AMS-5 is a summary of the proposed fuel factor components for each  
7 customer class. If approved by the Commission, the rates proposed in this proceeding,  
8 including the recommended DERP Charge addressed by ORS witness Morgan, would  
9 increase the average monthly bill for a residential customer on Rate RS using 1,000  
10 kilowatt-hours ("kWh") from \$116.24 to approximately \$119.77, a net increase of \$3.53  
11 or approximately 3.0%.

12 **Q. DOES ORS HAVE ANY ADDITIONAL RECOMMENDATIONS REGARDING**  
13 **THE COMPANY'S ANNUAL FUEL FILINGS?**

14 A. Yes. ORS recommends that DEC provide a forecast to all interested parties of the  
15 expected fuel factor to be set at its next annual fuel proceeding based upon its historical  
16 (over)/under recovery to date and forecasts of prices for uranium, natural gas, coal, oil, and  
17 other fuel required for the generation of electricity. Additionally, the forecast would  
18 provide the expected DERP Charge to be set at the Company's next annual fuel proceeding  
19 based upon DEC's historical (over)/under-recovery to date and DEC's forecast of DERP  
20 incremental and avoided costs. ORS recommends these forecasts be provided during ~~each~~  
21 ~~of the three (3) quarters~~ the 4<sup>th</sup> quarter of the calendar year prior to the next annual fuel  
22 proceeding and in the 2<sup>nd</sup> quarter of the calendar year of the Company's next annual fuel  
23 proceeding in which there is no annual fuel proceeding but not in the quarter where DEC



1        ~~makes its annual fuel filing~~. These forecasts would provide valuable information for  
2        interested parties prior to the Company's next fuel proceeding.

3                ORS also recommends the Company continue to actively monitor commodity and  
4        transportation costs outside of quarterly filings made to the Commission. If large increase  
5        or decrease is experienced in the period between the Company's most recent quarterly  
6        forecast and the filing of the Company's Direct Testimony in an annual fuel proceeding,  
7        then the Company should update its forecasts to include pricing that is most current and  
8        accurate in the filing of the Company's Direct Testimony.

9        **Q.    WILL YOU UPDATE YOUR REVISED DIRECT TESTIMONY BASED ON**  
10       **INFORMATION THAT BECOMES AVAILABLE?**

11       A.                Yes. ORS fully reserves the right to revise its recommendations via supplemental  
12       testimony should new information not previously provided by the Company, or other  
13       sources, becomes available.

14       **Q.    DOES THIS CONCLUDE YOUR REVISED DIRECT TESTIMONY?**

15       A.                Yes, it does.

**Office of Regulatory Staff**  
**Comparison of South Carolina Estimated to Actual Energy Sales**  
**Duke Energy Carolinas, LLC**  
*Docket No. 2021-3-E*

EXHIBIT AMS-1

		2020						2021						
		June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Actual Period Total
[1]	Actual Sales (MWh)	1,634,579	1,928,052	2,022,017	1,888,464	1,520,131	1,768,506	1,397,168	2,057,350	1,621,608	1,388,702	1,479,443	1,406,849	20,112,870
[2]	Estimated Sales (MWh)	1,741,961	1,839,594	1,994,953	1,883,212	1,584,412	1,579,561	1,737,388	1,899,173	1,913,568	1,789,111	1,649,822	1,597,238	21,209,993
[3]	Difference [1]-[2]	-107,382	88,458	27,064	5,252	-64,282	188,945	-340,220	158,177	-291,960	-400,409	-170,379	-190,388	-1,097,123
[4]	Percent Difference [3]/[2]	-6.16%	4.81%	1.36%	0.28%	-4.06%	11.96%	-19.58%	8.33%	-15.26%	-22.38%	-10.33%	-11.92%	-5.17%

**Office of Regulatory Staff**  
**Comparison of South Carolina Estimated to Actual Fuel Cost**  
**Duke Energy Carolinas, LLC**  
*Docket No. 2021-3-E*

		2020							2021					
		June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Actual Period Average
[1]	Actual Experience (¢/kWh)	1.8358	1.9988	1.8710	1.4414	1.5642	1.2853	2.1368	1.6003	2.0649	1.5560	1.4737	1.7953	1.7186
[2]	Original Projection (¢/kWh)	1.9573	2.0315	1.6629	1.4830	1.8813	1.5581	1.5702	1.9088	1.4796	1.3783	1.5422	1.3901	1.6536
[3]	Amount in Base (¢/kWh)	2.1166	2.1166	2.1166	2.1166	1.5025	1.5025	1.5025	1.5025	1.5025	1.5025	1.5025	1.5025	1.7072
[4]	Variance from Actual [1-2]/[2]	-6.21%	-1.61%	12.51%	-2.81%	-16.86%	-17.51%	36.09%	-16.16%	39.55%	12.89%	-4.44%	29.15%	3.93%

Office of Regulatory Staff

Comparison of South Carolina Estimated to Actual Base Fuel Costs

Duke Energy Carolinas, LLC

Docket No. 2021-3-E

EXHIBIT AMS-3

		2020							2021					
		June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Actual Period Total
[1]	Actual Experience (Total \$)	\$29,650,926	\$38,178,294	\$37,469,155	\$26,852,459	\$23,453,089	\$22,453,805	\$29,577,396	\$32,642,650	\$33,201,916	\$21,318,695	\$21,513,548	\$24,968,470	\$341,280,403
[2]	Original Projection (Total \$)	\$33,918,704	\$37,005,752	\$32,808,108	\$27,562,449	\$29,510,237	\$24,313,962	\$26,982,068	\$35,951,122	\$28,013,287	\$24,359,527	\$25,142,719	\$21,903,212	\$347,471,147
[3]	Difference [1]-[2]	-\$4,267,778	\$1,172,542	\$4,661,047	-\$709,990	-\$6,057,148	-\$1,860,157	\$2,595,328	-\$3,308,471	\$5,188,628	-\$3,040,832	-\$3,629,171	\$3,065,258	-\$6,190,744
[4]	Percent Difference [3]/[2]	-12.58%	3.17%	14.21%	-2.58%	-20.53%	-7.65%	9.62%	-9.20%	18.52%	-12.48%	-14.43%	13.99%	-1.78%

**Office of Regulatory Staff**  
**History of Cumulative Recovery Accounts**  
**Duke Energy Carolinas, LLC**  
*Docket No. 2021-3-E*

EXHIBIT AMS-4

<b>Period Ending</b>	<b>Base Fuel Costs (Over)/Under</b>	<b>Environmental Costs (Over)/Under</b>	<b>Capacity Costs (Over)/Under</b>	<b>DERP Avoided Costs (Over)/Under</b>
May-12	\$ (41,792,888)	\$ (7,198,018)	N/A	N/A
May-13	\$ (25,476,878)	\$ (6,084,377)	N/A	N/A
May-14	\$ 35,958,217	\$ (1,788,254)	N/A	N/A
May-15	\$ 30,787,463	\$ (1,634,322)	\$ 1,048,969	N/A
May-16	\$ (35,017,408)	\$ (4,759,509)	\$ 1,875,605	\$ (263,642)
May-17	\$ 7,670,353	\$ (2,985,690)	\$ 792,575	\$ (235,096)
May-18	\$ 64,403,063	\$ (1,461,868)	\$ (910,631)	\$ (24,301)
May-19	\$ 86,217,228	\$ (965,535)	\$ (5,379,540)	\$ (1,472)
May-20	\$ 8,256,488	\$ (1,044,760)	\$ (1,748,011)	\$ (117,601)
May-21	\$ (1,958,883)	\$ (1,690,481)	\$ 3,819,899	\$ (249,500)

**Office of Regulatory Staff**  
**Proposed Fuel Factors**  
**Duke Energy Carolinas, LLC**  
*Docket No. 2021-3-E*

EXHIBIT AMS-5

	<b>DEC Proposed Fuel Factors (¢/kWh)</b>				
<b>Customer Class</b>	<b>Base Fuel Cost Component</b>	<b>Environmental Cost Component</b>	<b>Capacity Related Cost Component</b>	<b>DERP Avoided Cost Component</b>	<b>Total Fuel Factor</b>
<b>Residential</b>	1.8123	0.0180	0.1264	0.0040	1.9607
<b>General Service / Lighting</b>	1.8123	0.0136	0.0967	0.0029	1.9255
<b>Industrial</b>	1.8123	0.0085	0.0653	0.0020	1.8881